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10/591,627

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EXAMINER

YABUT, DANIEL D

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,627	Applicant(s) SCHWENDEMANN, FRANZ	
	Examiner DANIEL YABUT	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claim 14, 15, 18, 22, 23 and 27 rejected** under 35 U.S.C. 102(b) as being anticipated by Frey et al., US PBPub 2004/0012280.

Frey et al. discloses a rotary drive (see at least Fig. 1) that adjust a moving part in a motor vehicle (para. [003]/ L1-5) comprising a(n):

Re claim 14

- Rotor (6) positioned with bearings (see bearings near 6 and 14 in Fig. 1) in a housing (Fig. 1)
- Rotor being supported with at least one front face (18) axially on a supporting member (34), which is attached via a form closure on the housing
- Supporting member (A; see Figure Y below) having radial crosspieces (see paragraph [0029], lines 8-10) that can be turned into the housing (3) thereby creating chamfers. **Note:** *Frey discloses the supporting member as a set screw with an external thread, see paragraph [0029], lines 8-10, which is commonly known in the art to be capable of turning into a housing and creating chamfers as described in the specification.*

Re claim 15

- Supporting member having a cylindrically shaped base plate (at A; see Figure Y below) having its own cylinder axis (C; see Figure Y below) wherein the base plate has an outer circumference where crosspieces (B; see Figure Y below) are arranged in a plane approximately perpendicular to the cylinder axis (see crosspieces in planes approximately vertical to the cylinder axis C in Figure Y below)

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Re claim 18

- Crosspieces (B) are arranged in several planes, which are axially spaced in intervals (see Figure Y below)

Re claim 22

- Front face of the rotor has a radius (D; see Fig. Y below) that rests against a flat stop surface (E; see Fig. Y below) that is formed on the supporting member

Re claim 23

- Advancement of the supporting member (see paragraph [0029] lines 8-14) as well as a notch-like feature (F; see Figure Y below) formed on the support member which is deemed to be a form closed entrainment member.

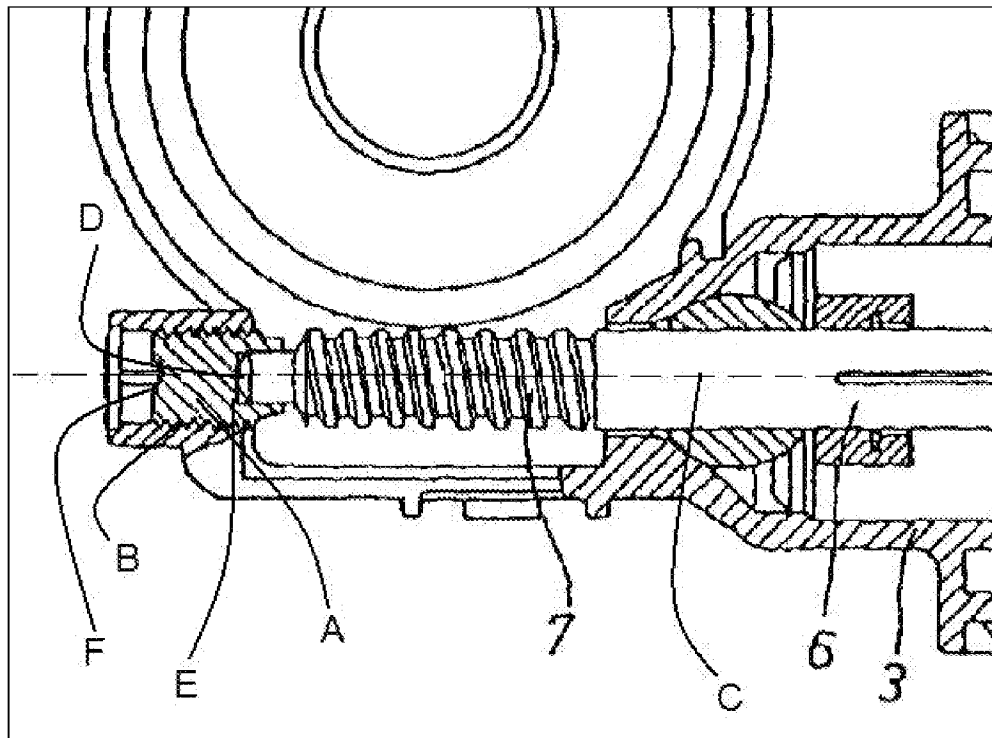


Figure Y: View of supporting member within rotor drive in the device of Frey et al.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 26** is rejected under 35 U.S.C. 102(b)/103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 as applied to claim 23 above.

Frey et al. discloses all of the claim limitations, see above, but does **not** expressly disclose the entrainment member being an inside polyhedron or cross slit that transfers a torque during the installation of the supporting member.

However, it is deemed that the notch-like feature noted above includes the inside polyhedron or cross slit, both of which are old and well known in the art.

Alternatively, it would have been an obvious matter of design choice to one having ordinary skill in the art at the time of the invention for the entrainment member to have an inside polyhedron or cross slit which are old and well known in the art to enable a transfer of a torque to the supporting member during the installation of the supporting member for the purpose of facilitating installation (or removal) of the supporting member. Further, the use of a polyhedron and a cross slit for the purpose of transferring torque during installation was well known in the art by one of ordinary skill at the time of the invention.

5. **Claims 16 and 17** rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view of Gutshall, US Patent 4,069,730.

Frey et al. discloses all of the claim limitations, see above, but does **not** expressly disclose the following:

Re claim 16

- Crosspieces being arranged in tangentially spaced intervals between the crosspieces and extending over an angular range that consists of a fraction of the outer circumference

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Re claim 17

- Crosspieces including two crosspieces lying radially opposed to each other and being curved, and are positioned around the outer circumference

As to **claim 16**, Gutshall teaches the use of crosspieces (16) being arranged in tangentially spaced intervals between the crosspieces (see tangentially spaced intervals at 14 in at least Fig. 1) and extending over an angular range that consists of a fraction of the outer circumference (see angular range in at least Fig. 2) for the purpose of increasing contact area and thus effectively providing more axial support (C2 / L16-20).

Regarding **claim 16**, it would have been obvious to one having ordinary skill in the art at the time of the invention to alternatively provide crosspieces being arranged in tangentially spaced intervals between the crosspieces and extending over an angular range that consists of a fraction of the outer circumference, as taught by Gutshall, in the device of Frey et al. for the purpose of increasing contact area and thus effectively providing more axial support.

As to **claim 17**, Gutshall teaches the use of crosspieces (16) including two crosspieces lying radially opposed to each other (see at 16 in at least Fig. 3) and being curved (see curved shape at 16 in at least Fig. 2), and are positioned around the outer circumference for the purpose of reducing tapping torque (C2 / L16-20).

Regarding **claim 17**, it would have been obvious to one having ordinary skill at the time of the invention to alternatively provide crosspieces including two crosspieces lying radially opposed to each other and being curved, and are positioned around the outer circumference, as taught by Gutshall, in the device of Frey et al. for the purpose of reducing tapping torque which can promote the ease of installation.

6. **Claims 21 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view of Gutshall, US Patent 4,572,875.

Frey et al. discloses all of the claim limitations, see above, but does **not** expressly disclose the following, respectively:

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Re claim 21

- Crosspieces having a sharp cutting edge that cuts into the housing when turned in a direction of installation, and the crosspieces having a second edge with locking mechanisms

Re claim 25

- Locking mechanisms include a ridge that grabs tightly into the housing when turning occurs against the direction of installation

As to **claim 21 and 25**, Gutshall teaches the use of crosspieces (22) having a sharp cutting edge (24) that cuts into the housing when turned in a direction of installation, and the crosspieces having a second edge (at 22) with locking mechanisms for the purpose of reducing the torque requirement for installation and to ensure a robust attachment. The cutting edge (24) gradually expands in width to become a ridge, or second edge (at 22), and thereby naturally grabs tightly into the housing when turning occurs against the direction of installation. Further, according to Gutshall, the second edge (22) requires a substantially higher torque application for tapping relative to the cutting edge (C1 / L32-37), and can thus act as a locking mechanism.

Regarding **claim 21**, it would have been obvious to one having ordinary skill in the art at the time of the invention to alternatively provide crosspieces having a sharp cutting edge that cuts into the housing when turned in a direction of installation, and the crosspieces having a second edge with locking mechanisms, as taught by Gutshall, in the device of Frey et al. for the purpose of reducing the torque requirement for installation.

Regarding **claim 25**, it would have been obvious to one having ordinary skill in the art at the time of the invention for the locking mechanisms to include a ridge that grabs tightly into the housing when turning occurs against the direction of installation, as taught by Gutshall, in the device of Frey et al. as modified above to ensure a robust attachment.

7. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view of Sangret, US Patent 6,269,709.

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Frey et al. discloses all of the claim limitations, see above, but does not disclose the housing having a through hole with radially formed recesses on a circumference of the through hole, in which crosspieces of the supporting member are inserted axially during installation.

Sangret teaches the use of a housing (60) having a through hole (64) with radially formed recesses on a circumference of the through hole (C3 / L17-18), in which crosspieces (on member 66) of a supporting member (66) are inserted axially during installation for the purpose of closing the housing chamber and supporting inner components (C3 / L15-17).

It would have been obvious to one having ordinary skill at the time of the invention to provide the housing having a through hole with radially formed recesses on a circumference of the through hole, in which crosspieces of the supporting member are inserted axially during installation, as taught by Sangret, in the device of Frey et al. for the purpose of closing the housing chamber and supporting inner components (see column 3, lines 15-17).

Frey et al. as modified above further discloses the following:

Re claim 27

- Rotor (6) positioned with bearings (see bearings near 6 and 14 in Fig. 1) in a housing (Fig. 1)
- Rotor being supported with at least one front face (18) axially on a supporting member (34), which is attached via a form closure on the housing
- Supporting member (A; see Figure Y below) having radial crosspieces (see paragraph [0029], lines 8-10) that can be turned into the housing (3) thereby creating chamfers. **Note:** *Frey discloses the supporting member as a set screw with an external thread, see paragraph [0029], lines 8-10, which is commonly known in the art to be capable of turning into a housing and creating chamfers as described in the specification*
- Through hole with radially formed recesses on a circumference of the through hole, in which crosspieces of the supporting member are inserted axially during installation
- Radial recesses extending from the through hole radial outwards over an angular range (C3 / L17-18; near 66 in Fig. 2)

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- Radial crosspieces being turned into the housing in a self-tapping way. **Note:** *Regarding this limitation, the MPEP states, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”. As set forth in MPEP 2113, product by process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 USC 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.*

8. **Claims 20 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frey et al., US PGPub 2004/0012280 in view Adams, US Patent 5,000,637.

Frey et al. discloses all of the claim limitations, see above, including an attachment area for the supporting member (at B in Figure Y above) but does not disclose the following, respectively:

Re claim 20

- Attachment area being manufactured from a softer material than that of the crosspieces

Re claim 24

- The softer material including plastic, aluminum, magnesium or zinc

As to **claims 20 and 24**, Adams teaches the use of an attachment area (36) being manufactured from a softer material, the material being plastic (C4 / L38-40), than that of the crosspieces (24) for the purpose of allowing the crosspieces to securely attach to the attachment area (C4 / L34-36).

Regarding **claims 20 and 24**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an attachment area being manufactured from a softer material, the material being plastic, than that of the crosspieces, as taught by Adams, in the device of Frey et al. for the purpose of allowing the crosspieces to securely attach to the attachment area thus providing superior fastening performance.

Response to Arguments

Applicant's arguments filed 18 November 2008 have been fully considered but they are not persuasive.

In response to Applicant's argument that Frey does not disclose or suggest radial crosspieces that can be turned into the housing and thereby create chamfers, the previous action noted that Frey discloses the supporting member as a set screw with an external thread (para. [0029] / L8-10) and that it is commonly known in the art to be capable of turning into a housing and creating chamfers. The Frey reference sufficiently discloses the structure as claimed. Furthermore, the MPEP states, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". As set forth in MPEP 2113, product by process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 USC 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard W. Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL YABUT/
Examiner, Art Unit 3656
4/28/2009

/Marcus Charles/
Primary Examiner, Art Unit 3656